

Serial No. 10/787,086

NIT-156-05

Response to Office Action dated February 22, 2006

**AMENDMENTS TO THE CLAIMS**

This listing of claims will replace all prior versions and listing of claims in the application.

**LISTING OF CLAIMS**

1-33 (Canceled)

34. (New) An optical module comprising:

a resin case type plastic package having a base and a cap,

a lead frame formed integrally with said base,

a die pad extended from said lead frame,

a cavity formed mainly by said base and said cap,

a substrate mounted on said die pad,

optical devices mounted on said substrate, wherein a V groove is provided in said base, the base having a first U groove, a second U groove and a projection, and the projection is formed between said cavity and the second U groove, and the first U groove is provided in the projection,

an optical fiber having a bare fiber portion and a jacket covering portion covering the bare fiber portion; the bare fiber portion being fixed to the V groove and the first U groove; the jacket covering portion being fixed to the second U groove,

wherein each depth of the first and second U grooves is formed so that the height of fiber increases from extreme end thereof at the V groove portion to the U Groove, and

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said optical fiber is fixed so that said optical fiber has flexure at the portion between the V groove and the second U groove, and

said optical devices and the extreme end of said optical fiber are encapsulated with transparent silicon resin gel.

35. (New) An optical module according to claim 34, wherein a refractive index of said transparent silicon resin gel matches that of said optical fiber.

36. (New) An optical module according to claim 34, wherein said optical device, the end of said optical fiber optically coupled to said optical device, and said substrate are placed inside said resin case type plastic package.

37. (New) An optical module according to claim 34, wherein said resin case type plastic package is formed by transfer molding.

38. (New) An optical module according to claim 34, wherein said Substrate is a silicon substrate.